

# ChemComm

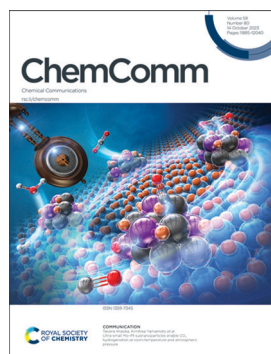
Chemical Communications

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## IN THIS ISSUE

ISSN 1359-7345 CODEN CHCOFS 59(80) 11885-12040 (2023)



### Cover

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### Inside cover

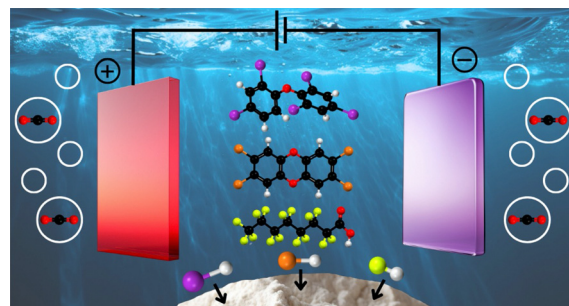
See Astrid M. Müller *et al.*, pp. 11895–11922. Image reproduced by permission of Astrid M. Müller and Madeleine K. Wilsey from *Chem. Commun.*, 2023, 59, 11895.

## HIGHLIGHT

11895

### Advanced electrocatalytic redox processes for environmental remediation of halogenated organic water pollutants

Madeleine K. Wilsey, Teona Taseska, Ziyi Meng, Wanqing Yu and Astrid M. Müller\*

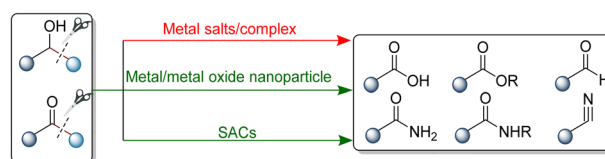


## FEATURE ARTICLES

11923

### Aerobic oxidative C–C bond cleavage and functionalization for the synthesis of value-added chemicals

Peng Zhou, Ziliang Yuan, Jie He, Tingfeng Fang, Bing Liu\* and Zehui Zhang\*



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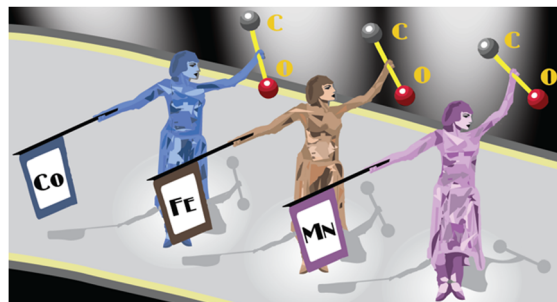


## FEATURE ARTICLES

11932

## Activation of robust bonds by carbonyl complexes of Mn, Fe and Co

Maxim R. Radzhabov and Neal P. Mankad\*

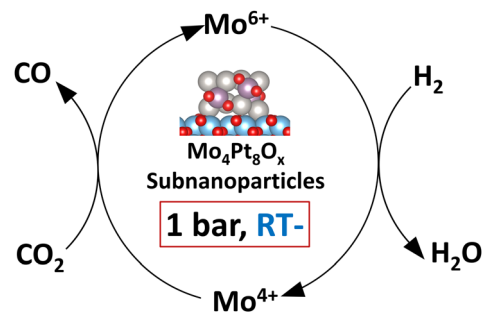


## COMMUNICATIONS

11947

Ultra-small Mo–Pt subnanoparticles enable CO<sub>2</sub> hydrogenation at room temperature and atmospheric pressure

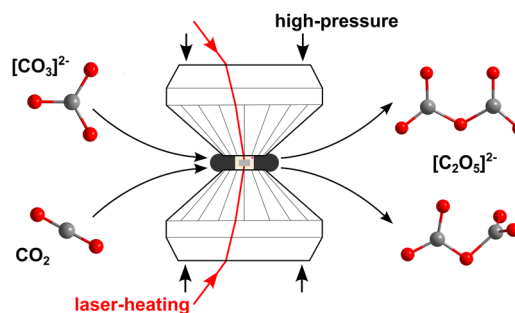
Augie Atqa, Masataka Yoshida, Masanori Wakizaka, Wang-Jae Chun, Akira Oda, Takane Imaoka\* and Kimihisa Yamamoto\*



11951

Twisted [C<sub>2</sub>O<sub>5</sub>]<sup>2−</sup>-groups in Ba[C<sub>2</sub>O<sub>5</sub>] pyrocarbonate

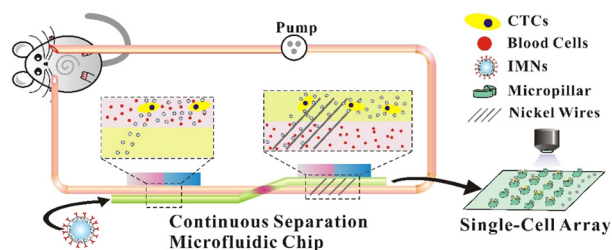
Dominik Spahr,\* Lkhamsuren Bayarjargal, Eiken Haussühl, Rita Luchitskaia, Alexandra Friedrich, Victor Milman, Timofey Fedotenko and Björn Winkler



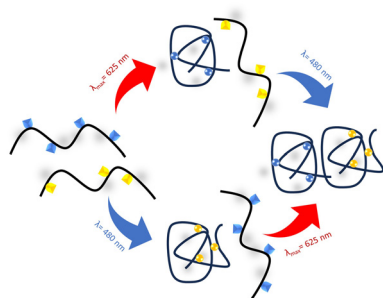
11955

Continuous magnetic separation microfluidic chip for tumor cell *in vivo* detection

Man Tang, Jiao Feng, Hou-Fu Xia, Chun-Miao Xu, Ling-Ling Wu, Min Wu, Shao-Li Hong, Gang Chen\* and Zhi-Ling Zhang\*



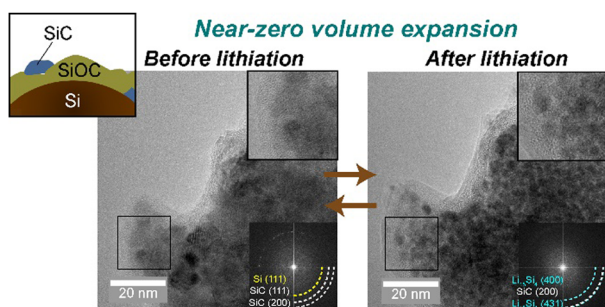
11959



### Simultaneously recorded photochemical action plots reveal orthogonal reactivity

Ishrath Mohamed Irshadeen, Vinh X. Truong, Hendrik Frisch\* and Christopher Barner-Kowollik\*

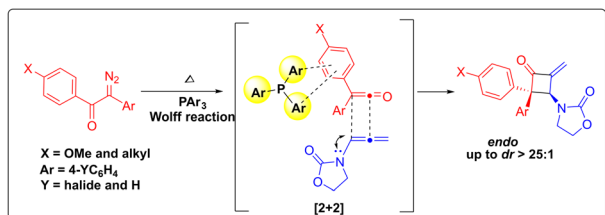
11963



### Near zero-strain silicon oxycarbide interphases for stable Li-ion batteries

Su Jeong Yeom, Tae-Ung Wi, Soon-Jae Jung, Myeong Seon Kim, Sang-Chae Jeon and Hyun-Wook Lee\*

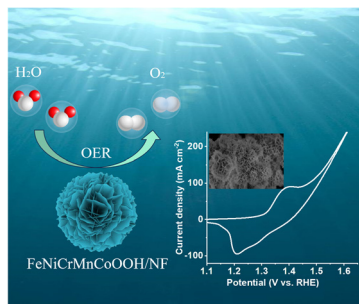
11967



### Stereo- and regiocontrol in intermolecular [2+2] cycloadditions between diarylketenes and allenamides to access substituted α-methylenecyclobutanones

Akshay Suresh Kshirsagar, Sayaji Arjun More and Rai-Shung Liu\*

11971



### Nanoflower-like high-entropy Ni–Fe–Cr–Mn–Co (oxy)hydroxides for oxygen evolution

Mingyuan Shi, Tianmi Tang, Liyuan Xiao, Jingyi Han, Xue Bai, Yuhang Sun, Siyu Chen, Jingru Sun, Yuanyuan Ma\* and Jingqi Guan\*



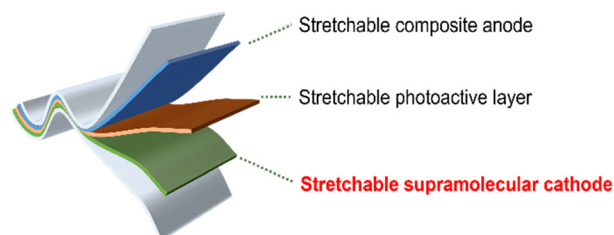
## COMMUNICATIONS

11975

### Supramolecular interface decoration on a polymer conductor for an intrinsically stretchable near-infrared photodiode

Fan Chen, Yiming Li, Yan Chen, Yi-Xuan Wang\* and Wenping Hu\*

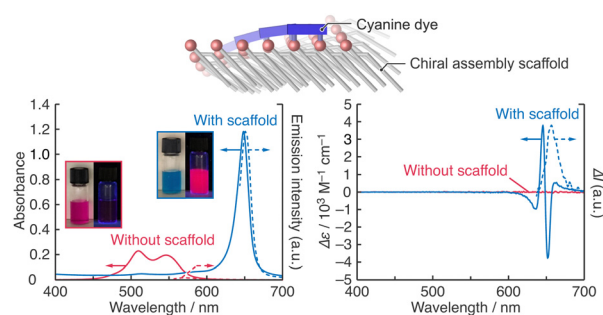
### Intrinsically stretchable photodiode



11979

### Controlled packing of chiral assembly scaffolds to promote chiral J-aggregation of carbocyanine dyes

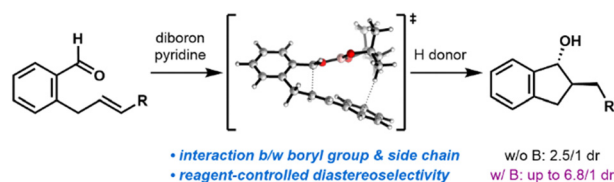
Naoya Ryu,\* Yusei Yamamoto, Yutaka Okazaki, Nanami Hano, Yuki Iwamoto, Tomohiro Shirosaki, Shoji Nagaoka, Reiko Oda, Hiroataka Ihara and Makoto Takafuji



11983

### Stereochemical modulation of ketyl radical cyclization enabled by pyridine-boryl radicals: catalytic diastereoselective synthesis of *trans*-2-alkyl-1-indanols

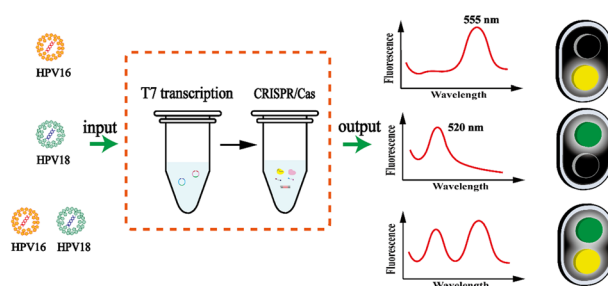
Somi Kim, Junhyuk Jo, Sunggi Lee\* and Won-jin Chung\*



11987

### Target-mediated rolling circle transcription coupling with CRISPR/Cas12a-Cas13a for simultaneous detection of HPV16 and HPV18

Shiying Zhou, Shuyu Zhu, Zhen Huang, Jian Chen, Jiawei Li, Mei Yang, Liang Jin,\* Danqun Huo\* and Changjun Hou\*



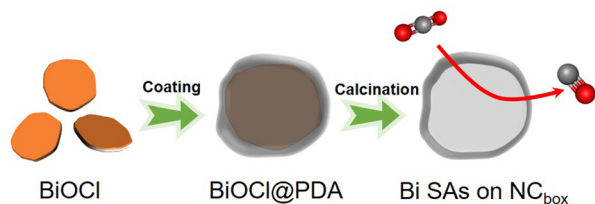


## COMMUNICATIONS

11991

**N-doped carbon nanocage-anchored bismuth atoms for efficient CO<sub>2</sub> reduction**

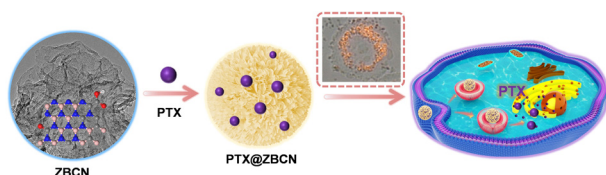
Jiayi Li, Lingling Zhang, Shuai Gao, Xingmin Chen, Runjie Wu, Xiao Wang\* and Qiang Wang\*



11995

**Flower-like porous BCN assembled by nanosheets for paclitaxel delivery**

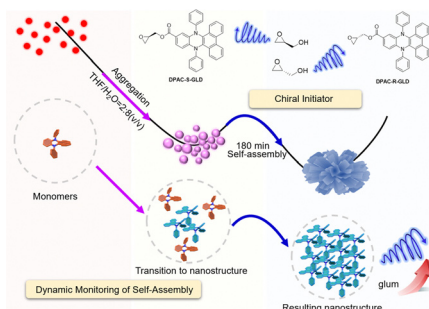
Haiyan Wang, Congling Wang, Yuxian Deng, Yuxin Han, Shuo Xiang, Hanning Xiao and Qunhong Weng\*



11999

**Dynamic monitoring of self-assembly by confining conformational changes of butterfly-motion-based molecules**

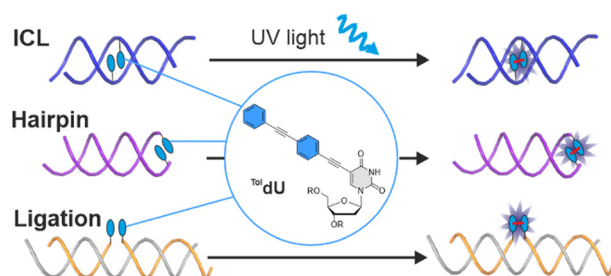
Xuanying Chen, Jiacheng Chen, Wenyuan Su, Jianhua Su, Qi Zou\* and Zhiyun Zhang\*



12003

**A tolane-modified 5-ethynyluridine as a universal and fluorogenic photochemical DNA crosslinker**

Hermann Neitz and Claudia Höbartner\*

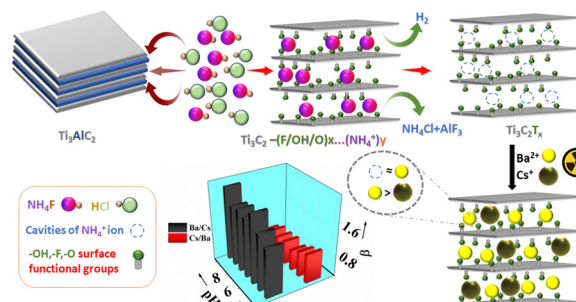


## COMMUNICATIONS

12007

### Application of MXene for remediation of low-level radioactive aqueous solutions contaminated with $^{133}\text{Ba}$ and $^{137}\text{Cs}$

Vipul Vilas Kusumkar, Shalu Atri,\* Süleyman İnan, Maros Gregor, Tomas Roch, Hryhorii Makarov, Maria Caplovicova, Michal Galambos, Eva Viglasova, Gustav Plesch and Olivier Monfort\*



12011

### Rapid and sensitive point-of-care PTS-CRISPR assay for food safety monitoring of aflatoxin B1

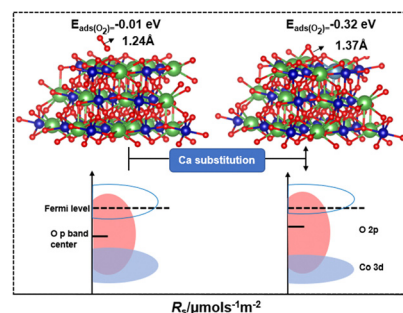
Ziqiang Deng, Jin Zhou, Chaoqun Wang, Jianyu Hu, Rui Liu\* and Yi Lv



12015

### Ca substitution improves the catalytic activity of perovskite $\text{LaCoO}_3$ toward toluene: comprehension of electronic structure alteration

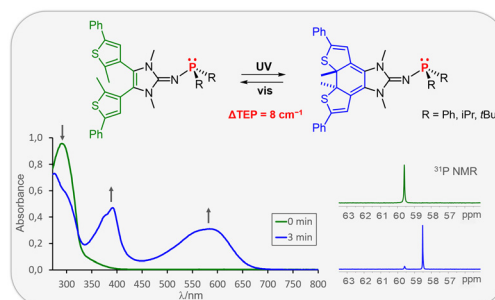
Hanlin Chen, Gaoling Wei, Zijuan You, Xiaoliang Liang,\* Peng Liu, Yiping Yang, Fuding Tan, Suhua Wang, Jieqi Xing and Steven L. Suib



12019

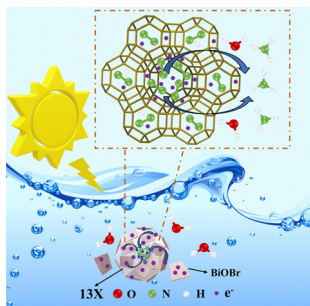
### Photoswitchable electron-rich phosphines: using light to modulate the electron-donating ability of phosphines

Florenz Buß, Mowpriya Das, Daniel Janssen-Müller, Alexander Sietmann, Ankita Das, Lukas F. B. Wilm, Matthias Freitag, Michael Seidl, Frank Glorius\* and Fabian Dielmann\*



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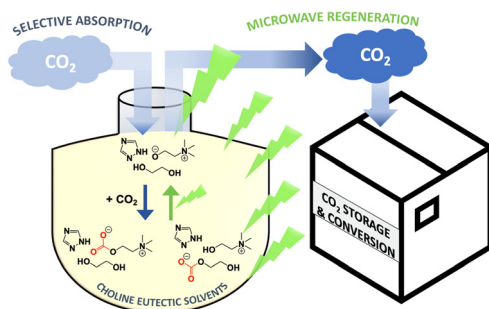
12023



### The role of 13X molecular sieves in photocatalytic nitrogen fixation

Jianuan Wen, Wei Cai, Zhicheng Zhang, Qin Zhong and Hongxia Qu\*

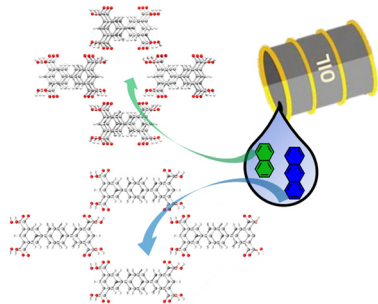
12027



### Formation of choline salts and dipolar ions for CO<sub>2</sub> reactive eutectic solvents

Ruth Dikki, Eda Cagli, Drace Penley, Metin Karayilan and Burcu Gurkan\*

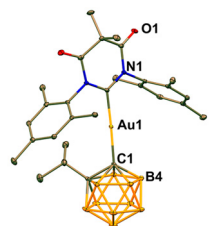
12031



### Selective adsorption of polycyclic aromatic hydrocarbons by isostructural hydrogen-bonded organic frameworks

Peng Cui,\* Qiang Zhu, Fangfang Zhang, Dongni Liu and Wenshuai Zhu\*

12035



### Fast and Bright Phosphorescence

### Highly phosphorescent carbene–metal–carboranyl complexes of copper(i) and gold(i)

Samuel L. Powley, Charlotte Riley, Hwan-Hee Cho, Nguyen Le Phuoc, Mikko Linnolahti,\* Neil Greenham\* and Alexander S. Romanov\*

